

IN THE SPECIFICATION:

Please amend paragraph 126 of the Specification as follows:

[0126] In addition, in various embodiments of an apparatus according to the invention conduits 4 are provided which are further provided with measuring means 10, for easily measuring the catalyst flow rate in the conduits 4. These flow measuring means 10 preferably are Coriolis flow measuring means. The means 10 can be provided between the mixing vessel 3 and the membrane pumps 5 or downstream from said pumping means 5. Preferably, said means 10 are provided upstream of the co-catalyst injection conduit 1244. The slurry is preferably injected in ratio control of isobutane diluent to catalyst. The ratio of catalyst to diluent is adequately controlled and adjusted by controlling the speed of the pump 5 and by measuring the density of the isobutane diluent. The Coriolis meters 10 can measure the flow and the density of the catalyst slurry at the exit of the mixing vessel 3 and indirectly determine the suspended solids concentration. A correlation exists for estimating the concentration of suspended solids based on the slurry density, the carrier fluid density and the solid particle density.

Please amend paragraph 136 of the Specification as follows:

[0136] FIG. 4 represents a single loop reactor 100, consisting of a plurality of interconnected pipes 104. The vertical sections of the pipe segments 104 are preferably provided with heat jackets 105. Polymerization heat can be extracted by means of cooling water circulating in these jackets of the reactor. Reactants are introduced into the reactor 100 by line 107. Catalyst, optionally in conjunction with a co-catalyst or activation agent, is injected in the reactor 100 by means of the conduiteconduct 106. The polymerization slurry is directionally circulated throughout the loop reactor 100 as illustrated by the arrows 108 by one or more pumps, such as axial flow pump 101. The pump may be powered by an electric motor 102. As used herein the term "pump" includes any device from compressing driving, raising the pressure of a fluid, by means for example of a piston or set of rotating impellers 103. The reactor 100 is further provided with one or more settling legs 109 connected to the pipes 104 of the reactor 100. The settling legs 109 are preferably provided with a n isolation valve 110. These valves 110 are open under normal conditions and can be closed for example to isolate a settling leg from operation.

Further the settling legs can be provided with product take off or discharge valves 111. The discharge valve discharge of polymer slurry, when it is fully open. Polymer slurry settled in the settling legs 109 may be removed by means of one or more product recovery lines 113, e.g. to a product recovery zone.

Please amend paragraph 136 of the Specification as follows:

[0137] FIG. 5 represents a double loop reactor 100/116, comprising two single loop reactors 100 and 116, which are interconnected in series. Both reactors 100, 116 consist of a plurality of interconnected pipes 104. The interconnected pipes may be interconnected by a valve~~The vertical 111, which~~ may be any type of valve, which can permit continuous or periodical sections of the pipe segments 104, which are preferably provided with heat jackets 105. Reactants are introduced into the reactors 100 by line 107. Catalyst, optionally in conjunction with a coatalyst or activation agent, is injected in the reactor 100 or 116 by means of the conduct 106. The polymerization slurry is directionally circulated throughout the loop reactors 100, 116 as illustrated by the arrows 108 by one or more pumps, such as axial flow pump 101. The pumps may be powered by an electric motor 102. The pumps may be provided with a set of rotating impellers 103. The reactors 100, 116 are further provided with one or more settling legs 109 connected to the pipes 104 of the reactors 100, 116. The settling legs 109 are preferably provided with an isolation valve 110. Further the settling legs can be provided with product take off or discharge valves 111. Downstream the valve 111 at the exit of the settling leg 109 of reactor 100, a three-way valve 114 is provided which allows to transfer polymer slurry settled in the settling legs 109 to the other reactor 116, by means of the transfer line 112. The transfer line 112 connects the three-way valve 114, provided at the exit of the settling leg 109 of one reactor 100, with the entry in the other reactor 116, where preferably a piston valve 115 is provided. Polymer slurry settled in the settling legs 109 of reactor 116 can be removed by means of one or more product recovery lines 113, e.g. to a product recovery zone.